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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,337	07/22/2003	Yasuyuki Oishi	FUSA 15.617A (100807-0008)	8584
26304	7590	09/12/2006	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			TRAN, KHAI	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/625,337

Applicant(s)

OISHI ET AL.

Examiner

KHAI TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-15 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                                  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3 sheets</u> . | 6) <input type="checkbox"/> Other: _____   |

**DETAILED ACTION**

1. The preliminary amendment filed 7/22/2003 has been entered.
2. Claims 1-12 have been cancelled. Claims 13-17 are pending in this Office action.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamgar et al (U.S. Pat. 6,205,167) in view of Von Pieverling et al (U.S. Pat. 4,095,047).

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Regarding claim 13, Kamgar et al disclose the delay locked loop circuit for maintaining phase synchronization between a received spreading code included in a spread-spectrum signal and a reference spreading code as shown in Figure 5, comprising: a reference spreading code generator (516) for generating the reference spreading code; a combined code generator (516, 518) for generating a combined spread code from the reference spreading code; arithmetic means (504) for detecting a phase difference between the received spread code and the reference spread code using the combined spreading code. Kamgar et al fail to disclose a voltage controlled oscillator (VCO) for controlling a phase of the reference spreading code on the basis of the phase difference.

Von Pieverling et al disclose the delay locked loop (DLL) circuit as shown in Figure 1, comprising a voltage controlled oscillator (VCO) for controlling a phase of the reference spreading code on the basis of the phase difference (from a difference forming device). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the voltage controlled voltage (VCO) in the delay locked loop (DLL) for controlling the phase of the reference spreading code on the basis of the phase difference as taught by Von Pieverling et al into the teachings of Kamgar et al in order to control the pseudo-random generator (PZG).

***Claim Rejections - 35 USC § 103***

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamgar et al in view of Von Pieverling et al as applied to claim 1 above, and further in view of Takahashi (U.S. Pat. 5,375,141).

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Regarding claim 14, Kamgar et al disclose the arithmetic means comprising: a multiplier (520) for multiplying the received spreading code by the combined spreading code. Kamgar et al fail to disclose a filter for filtering an output of the multiplier (520).

Takahashi discloses a filter (1b, 2b) for filtering the output of the multiplier (1a, 2a). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the filter in the arithmetic means of the delay locked loop circuit as taught by Takahashi into the teachings of Kamgar et al and Von Pieverling et al for filtering the output signal from the multiplier.

***Claim Rejections - 35 USC § 103***

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamgar et al in view of Von Pieverling et al as applied to claim 1 above, and further in view of Brglez et al (U.S. Pat. 5,043,988).

Regarding claim 15, Kamgar et al and Von Pieverling et al fail to disclose wherein the combined code generates first weight and then combines a plurality of phase shift occurrences of the reference spreading code.

Brglez et al disclose wherein the combined code generates first weight and then combines a plurality of phase shift occurrences of the reference spreading code as shown in Figure 2 wherein the weight register (16) generates weight values and; each of these weight values combines with each of control bits from the pseudo random generator (12) by the combining means (13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to generate weights and then combine a plurality of phase

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shifted occurrence of the reference code as taught Brglez into the teachings of Kamgar et al and Von Pieverling et al in order to provide a weight random at high speeds, to test complex circuits quickly and efficiently.

***Allowable Subject Matter***

8. Claims 16-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Kamgar et al Von Pieverling et al, Takahashi, and Brglez et al fail to disclose wherein the combined code generator makes positive, and successively reduces in magnitude, the weights of  $n$ - number of reference spreading codes of small phase shift constituting a first half of  $2n$ -(where  $n$  is a positive integer) number of reference spreading codes that have been successively shifted in phase, and makes negative, and successively increases in magnitude, the weights of  $n$ -number of reference spreading codes of large phase shift constituting a second half of the reference spreading codes that have been successively shifted in phase.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (571) 272-2988. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KHAI TRAN  
Primary Examiner  
Art Unit 2611

*KT*  
September 09, 2006